

Doc. #479888

RECEIVED  
CENTRAL FAX CENTERIN THE CLAIMS

AUG 16 2007

Claims 74, 75 and 78-88 are withdrawn.

The pending claims are as follows:

74. (Withdrawn) An integrated circuit device having a film obtainable by chemical vapor deposition of an organometallic compound of the formula  $(R^1)_mM(PR^2_3)_x$ , where M is a metal selected from the group consisting of manganese, technetium, rhenium, iron, ruthenium, osmium, cobalt, rhodium, iridium, nickel, palladium, and platinum wherein (a) when M is manganese, technetium or rhenium, m is 1, x is 5 and  $m+x$  is 6; (b) when M is iron, ruthenium or osmium, m is 0, 1, 2, 3 or 4; x is 2, 3, 4 or 5 and  $m+x$  is 4, 5, 6 or 7; (c) when M is cobalt, rhodium or iridium, m is 1, 2, 3 or 4 and x is 2, 3 or 4 and  $m+x$  is 4, 5, 6, 7 or 8; and (d) when M is nickel, palladium or platinum, m is 0 or 2, x is 2, 3, or 4 and  $m+x$  is 2, 3, 4, 5 or 6; each  $R^1$  is independently selected from the group consisting of hydrogen, deuterium,  $N_2$ ,  $H_2$ ,  $D_2$  and a group of the formula  $-CR^3_2-CR^3_2-R^4$ ; each  $R^2$  is independently selected from the group consisting of lower alkyl, aryl, arylalkyl, alkoxy, aryloxy, arylalkoxy, alkylsilyl, arylsilyl, arylalkylsilyl, alkoxyisilyl, aryloxysilyl, arylalkoxysilyl, alkylsiloxy, arylsiloxy, arylalkylsiloxy, alkoxyisiloxy, aryloxysiloxy, arylalkoxysiloxy, alkylsilylalkyl, arylsilylalkyl, arylalkysilylalkyl, alkoxyisilylalkyl, aryloxysilylalkyl, arylalkoxysilylalkyl, alkylsiloxyalkyl, arylalkylsiloxyalkyl, alkoxyisiloxyalkyl, aryloxysiloxyalkyl, arylalkoxysiloxyalkyl, alkylsilylalkoxy, arylsilylalkoxy, arylalkylsilylalkoxy, alkoxyisilylalkoxy, aryloxysilylalkoxy arylalkyloxysilylalkoxy, alkylsiloxyalkoxy, arylalkylsiloxyalkoxy, alkoxyisiloxyalkoxy, aryloxysiloxyalkoxy, and arylalkoxysiloxyalkoxy; each  $R^3$  is independently selected from the group consisting of hydrogen, deuterium,  $C_1-C_6$  alkyl,  $C_1-C_6$  cycloalkyl, phenyl, benzyl, ( $C_1-C_2$  alkyl or alkoxy) $_3$ -silyl, and ( $C_1-C_2$  alkyl or alkoxy) $_3$ -siloxy and wherein at least two groups  $R^3$  are selected from the group consisting of hydrogen and deuterium;  $R^4$  is hydrogen or deuterium; and wherein when M is cobalt and one group  $R^1$  is selected to be  $N_2$ , then m is 2 and the second group  $R^1$  is hydrogen or deuterium.

Doc. #479888

75. (Withdrawn) The integrated circuit device of claim 74 wherein M is cobalt.

76. (Original) A method for forming a powder containing a metal or metal derivative comprising:

providing a medium; and

dispersing a vapor or liquid into the medium, the vapor or liquid containing an organometallic compound of the formula  $(R^1)_mM(PR^2_3)_x$ , where M is a metal selected from a Group VIIb, VIII, IX or X metal wherein (a) when M is manganese, technetium or rhenium, m is 1, x is 5 and  $m+x$  is 6; (b) when M is iron, ruthenium or osmium, m is 0, 1, 2, 3 or 4; x is 2, 3, 4 or 5 and  $m+x$  is 4, 5, 6 or 7; (c) when M is cobalt, rhodium or iridium, m is 1, 2, 3 or 4 and x is 2, 3 or 4 and  $m+x$  is 4, 5, 6, 7 or 8; and (d) when M is nickel, palladium or platinum, m is 0 or 2, x is 2, 3 or 4 and  $m+x$  is 2, 3, 4, 5 or 6; each  $R^1$  is independently selected from the group consisting of hydrogen, deuterium, N<sub>2</sub>, H<sub>2</sub>, D<sub>2</sub> and a group of the formula -CR<sup>3</sup><sub>2</sub>-CR<sup>3</sup><sub>2</sub>-R<sup>4</sup>; each R<sup>2</sup> is independently selected from the group consisting of lower alkyl, aryl, aryalkyl, alkoxy, aryloxy, arylalkoxy, alkylsilyl, arylsilyl, arylalkylsilyl, alkoxsilyl, aryloxysilyl, arylalkoxysilyl, alkylsiloxyl, arylsiloxyl, arylalkylsiloxyl, alkoxsiloxyl, aryloxysiloxyl, arylalkoxysiloxyl, alkylsilylalkyl, arylsilylalkyl, arylalkysilylalkyl, alkoxsilylalkyl, aryloxysilylalkyl, arylalkoxysilylalkyl, alkylsiloxylalkyl, arylsiloxylalkyl, arylalkoxysiloxylalkyl, alkoxysiloxylalkyl, aryloxysiloxylalkyl, arylalkyloxysilylalkoxy, alkylsilylalkoxy, arylalkylsilylalkoxy, arylalkoxysilylalkoxy, alkoxysiloxylalkoxy, arylalkoxysiloxylalkoxy, alkylsiloxylalkoxy, arylsiloxylalkoxy, arylalkylsiloxylalkoxy, alkoxsiloxylalkoxy, aryloxysiloxylalkoxy, arylalkoxysiloxylalkoxy, alkylsiloxylalkoxy, arylsiloxylalkoxy, arylalkoxysiloxylalkoxy, alkoxysiloxylalkoxy, arylalkoxysiloxylalkoxy, and arylalkoxysiloxylalkoxy; each R<sup>3</sup> is independently selected from the group consisting of hydrogen, deuterium, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> cycloalkyl, phenyl, benzyl, (C<sub>1</sub>-C<sub>2</sub> alkyl or alkoxy)<sub>3</sub>-silyl, and (C<sub>1</sub>-C<sub>2</sub> alkyl or alkoxy)<sub>3</sub>-siloxyl and wherein at least two groups R<sup>3</sup> are selected from the group consisting of hydrogen and deuterium, R<sup>4</sup> is hydrogen or deuterium; and wherein when M is cobalt and one group R<sup>1</sup> is selected to be N<sub>2</sub>, then m is 2 and the second group R<sup>1</sup> is hydrogen or deuterium.

Doc. #479888

77. (Original) The method of claim 76 wherein the medium is at a temperature at or above the thermal decomposition temperature of the organometallic precursor compound.

78. (Withdrawn) The integrated circuit device of claim 74 wherein M is manganese.

79. (Withdrawn) The integrated circuit device of claim 74 wherein M is technetium.

80. (Withdrawn) The integrated circuit device of claim 74 wherein M is rhenium.

81. (Withdrawn) The integrated circuit device of claim 74 wherein M is iron.

82. (Withdrawn) The integrated circuit device of claim 74 wherein M is ruthenium.

83. (Withdrawn) The integrated circuit device of claim 74 wherein M is osmium.

84. (Withdrawn) The integrated circuit device of claim 74 wherein M is rhodium.

85. (Withdrawn) The integrated circuit device of claim 74 wherein M is iridium.

86. (Withdrawn) The integrated circuit device of claim 74 wherein M is nickel.

Doc. #479888

87. (Withdrawn) The integrated circuit device of claim 74 wherein M is palladium.

88. (Withdrawn) The integrated circuit device of claim 74 wherein M is platinum.